

Other cases I have treated without the oil, but they were my mildest cases, and did not progress so satisfactorily as the more grave cases treated by the oil alone.

One patient treated with the oil, after seeming to be convalescent for a week, suddenly died, with all the symptoms of perforation of the intestine.

Pari passu with the progress of these cases, I had a couple of cases of very violent delirium tremens, in which I wished to avoid the use of opiates and alcoholic stimulants, and used the oil of valerian in the same small doses frequently repeated, as in the typhoid disease, and, unquestionably, the delirium subsided while the patients took the remedy, and returned with violence as soon as it was suspended a few hours, to subside again as promptly under its resumption.

In my typhoid cases there was little or no delirium where I gave the oil, while it was a very troublesome symptom in *all* the cases in which I did *not* use it, and one which I have always found very annoying in my former experience with the disease in question.

I do not wish it to be supposed that I am an advocate for the indiscriminate use of the oil of valerian in all cases of the typhoid disease, because it has seemed to be useful in a limited number of cases in a particular epidemic, but I do think that it may prove a valuable agent in the treatment of certain low forms of the typhoid and kindred conditions, in which an agent is required to rouse up the prostrated energy of the nervous system, thereby enabling *Nature*, our only real *vis medicatrix*, to rally her vital forces to the expulsion of disease and the reparation of its ravages.

ART. VI.—*On the Climate and Salubrity of Fort Moultrie and Sullivan's Island, Charleston Harbour, S. C., with Incidental Remarks on the Yellow Fever of the City of Charleston.* By JOHN B. PORTER, M. D., Surgeon U. S. A. (Continued from p. 101.)

WE will proceed to consider the epidemic fever of the third era, from 1817 to the present time, and the first in order occurred in

1817. In relation to this epidemic we have ample evidence. Even Dr. Hume says: "All we can now gather is, that the first city case was in Lynch's Lane; how it got there, no one can say." He ought to say how it "got there," if it was imported directly from the West Indies, as seems to be intimated subsequently.

Dr. Sheut is good authority; he was an eye-witness of the disease, and an active practitioner of medicine.

"In this year it commenced in the south-east section of the city, at or near Lynch's Lane, and progressed northwardly and partly north-westwardly, to

the market, and along the lower end of Church Street; of which places it is to be remarked, and particularly of the two former, that they are on made lands, having been formerly creeks, which intersected the city. By the middle of August, its extension and fatality were greatly increased, and in the latter end of the month, it infested most parts of the city, except the north-west.

"All the causes of yellow fever existed—heat and moisture in excess; animal and vegetable putrefaction, in its usual quantity; sinks and drains, as heretofore; and, to crown the whole, there was a great deficiency of electricity."

Quantity of rain :—

| | June. | July. | August. | September. | October. | Total. |
|--------|-------|-------|---------|------------|----------|--------|
| Inches | 8.90 | 5.20 | 9.35 | 5.45 | 4.75 | 33.65 |

"The greatest number of deaths that have been recorded in the city, from yellow fever, from the year 1748 to the present, a period of sixty-nine years, are those of the present year. Total number of deaths this season, 272. Great as this number may appear, if we notice the number of deaths from yellow fever in the years 1699, 1703, &c., it will be found that according to the increase of population the proportion is considerably less now than at any period of the 17th and 18th centuries."

Dr. Rush saw a letter from Isaac Norris to one of his correspondents, dated Charleston, Nov. 18, O. S., 1699, which says that "150 persons had died in Charleston in a few days; that "the survivors fled into the country;" and that "the town was thinned to a very few people"—facts which show that yellow fever was much worse soon after the settlement of the town than in 1817. It is hoped that Dr. Rush's facts are not so "flimsy and imaginative" as Dr. Hume considers his arguments.

No proof, nothing but assertion, has ever been offered that the yellow fever of 1817 was imported. It has been said by the advocates of contagion, Drs. Strobel and Hume, that commerce revived at the close of the last war with Great Britain, and introduced yellow fever; we should say, on the contrary, that commerce revived and brought subjects for the disease. These advocates of contagion seem to speak of 1817 as the first commercial year after the war; but they ought to recollect that peace was concluded early in 1815, and that this and the following year—neither of them epidemic—were more important, commercially, than 1817. We are indebted to Drs. Dawson and De Saussure, *Census of Charleston*, for the following :—

EXPORTS. *Value.*

| Fiscal year. | Domestic produce. | Foreign produce. | Total. |
|-------------------------------|-------------------|------------------|------------|
| 1 Oct. 1814, to 30 Sept. 1815 | 6,674,783 | 100,346 | 6,675,129 |
| " 1815, " 1816 | 10,446,213 | 403,196 | 10,849,409 |
| " 1816, " 1817 | 9,944,343 | 428,270 | 10,372,613 |
| " 1817, " 1818 | 11,184,298 | 256,664 | 11,440,962 |
| " 1818, " 1819 | 8,014,598 | 236,192 | 8,250,790 |
| " 1819, " 1820 | 8,690,639 | 192,401 | 8,882,940 |

IMPORTS. *Value.*

| Fiscal year. | Duties collected on imports in Charleston. | EXPORTS AND IMPORTS OF THE U. STATES. | |
|-------------------------------|--|---------------------------------------|-------------|
| | | Exports. | Imports. |
| 1 Oct. 1814, to 30 Sept. 1815 | 1,400,887 | 52,657,758 | 113,041,274 |
| " 1815, " 1816 | 1,474,474 | 81,920,452 | 147,103,000 |
| " 1816, " 1817 | 1,145,678 | 87,671,569 | 99,250,000 |
| " 1817, " 1818 | 1,308,104 | 93,281,133 | 121,750,000 |
| " 1818, " 1819 | 813,829 | 70,142,621 | 87,125,000 |
| " 1819, " 1820 | 613,698 | 69,691,669 | 74,450,000 |

From these tables it is apparent that in the years 1815 and 1816 there was plenty of commerce, and plenty of opportunities for the importation of fever; and there were numerous subjects among the strangers and commercial men; but the epidemic causes did not act with intensity, and there was no malignant fever.

It clearly appears, that of the commercial years 1815, 1816, 1817, 1818, the year 1817 was the least commercial of all. The amount of duties on imports is the criterion of the commercial intercourse, the very intercourse which, according to the contagionists, should import yellow fever; and we find from the tables that less revenue was collected from imports in the port of Charleston, in 1817, than in either of the other great commercial years succeeding the war. The years 1814, 1815, 1816, and 1818, were among the most healthy of all years since the settlement of the town.

In Dr. Strobel's book, the following passage occurs (p. 200):—

"The yellow fever had not prevailed in Charleston from the year 1807 up to this time (1817), a period of ten years. Upon the revival of commerce, however, at the close of the war of 1812, a sudden irruption of yellow fever took place, at a time when the city was filled with strangers."

This passage is calculated to mislead. In the first place, there was yellow fever in Charleston in both 1809 and 1811, notwithstanding the embargo. Then, one might be led to suppose that the war lasted from 1812 to 1817, whereas the treaty of peace had been ratified by the United States and Great Britain several months more than two years before the epidemic broke out; that this was the first year of commercial intercourse, when it was the third; and that there had been no strangers in the city until this year, when they had been necessarily present for more than two years previous to the breaking out of the epidemic.

1818. Epidemic fever did not prevail, though one of the decidedly commercial years. Dr. Shecut says of this year:—

"In 1818 many of the causes of yellow fever existed; the heat and dryness in excess; animal and vegetable putrefaction in the same proportion; and sinks and drains remained as before; but there was no epidemic yellow fever, and only a very few sporadic and doubtful cases of it."

1819. This was an epidemic year, though not to the extent of 1817. Dr. Shecut says of this year:—

"The present season, to the 25th of August, has been hot and wet, and remarkable for the excessive quantity of thunder and lightning."

Again: "The prevailing diseases for the season were intermittent, remittent, and catarrhal fevers; and by the 10th of August, a few sporadic cases of yellow fever were detected in the city, the atmosphere of which gave every evidence of a disposition to generate an epidemic yellow fever therein; and the immense number of strangers in Charleston, some of whom, both in point of situation and mode of living were proper subjects of disease, became soon its victims."

"All the causes of yellow fever, with the exception of a deficient electricity, existed this season as heretofore; the heat, though not excessive, was great; and the quantity of rain such as to constitute a wet season."

It is evident that the "plague had begun" at the time Dr. Shecut was writing, but he gives no intimation that it was imported; on the contrary, we are distinctly told that by the 10th of August a few sporadic cases (what the doctor doubtless hoped were sporadic) of yellow fever were detected in the city; and he gives the reasons for apprehending a malignant epidemic—the state of the atmosphere, the heat, the wet season, the immense number of strangers and their imprudent manner of living, and the filth, for he says that every cause "except deficient electricity existed as heretofore." No mention is made of importation from any part of the world, and if the disease had been imported, Dr. Shecut would have told us so. But it was not imported; it was generated in the city, notwithstanding "that Charleston is beyond the norther limits of *self-generating* epidemic yellow fever."

Dr. Shecut believed that the electrical condition of the atmosphere has much agency in producing yellow fever, as in 1817; while in 1818 an *electrical equilibrium* was kept up during the whole summer by excessive thunder and lightning, and the city was healthy; 1819 was "remarkable for the excessive quantity of thunder and lightning," and Dr. Shecut hoped when his work went to press, which was before the end of the epidemic season, that the city would escape from the ravages of malignant fever. But in this he was disappointed; epidemic fever prevailed, and there were 172 deaths. Dr. Simons says that this fever was less general than that of 1817, "although the disease was equally violent in its type."

We see that Dr. Shecut ventured to predict, though not very positively, that the yellow fever would not become epidemic in 1819; and that he was disappointed. In the spring of 1853, Dr. Hume predicted, publicly in the newspapers, from meteorological observations, that yellow fever would prevail in Charleston during the summer, in consequence of which many persons left the city. But the summer of 1853 was notoriously one of the most healthy in a number of years. The condition of the streets was horrible. During the wet season of 1817, not a single street in Charleston was paved, and it was no uncommon thing for loaded drays to be *set* or *stalled* in East Bay street, so deep was the mud. A great era commenced in 1819, when East Bay and Elliott Streets were paved. Let the good work proceed—not a single street, lane, or alley ought to remain unpaved.

1820. The fever prevailed slightly, but did not become epidemic.

1824. The next epidemic fever after 1818 occurred in 1824, when, says Dr. H. Y. Simons,

"It again raged in violence equal to any period in the annals of this country. The first cases were exhibited in a narrow, dirty alley, occupied chiefly by debauched females and sailors; from thence it extended among the shipping, then generally attacking strangers, and latterly children. Individuals who had lived here many years, but had not spent a yellow fever year here, died of it. Several cases were known of persons being seized and dying, who had been here in 1819 and even 1817. Children, some as old as ten years of age, and one as old as fourteen, natives and inhabitants of Charleston, died with this disease; many negroes from the country were seized, but the disease was much milder and few deaths occurred among them.

"Charleston Neck, which adjoins the city, and which is all original land, was quite healthy; strangers residing there generally escaped; and in almost every instance where it did occur, the cause could be traced to exposure in the city."

Dr. Simons concludes:—

"1. The yellow fever is endemic of Charleston, and has its origin in causes there.

"2. All persons who have not spent a yellow fever year there are liable to the disease, and it is questionable if they are wholly exempt until they have had the disease.

"3. Children from the age of one year to twelve are susceptible of this disease, although not in an equal degree with strangers.

"4. Persons living in warm latitudes are liable to this disease, but in a less degree than those of cold latitudes.

"5. Persons born and raised in Charleston, but who have lived for some time in cold latitudes, are liable to the disease.

"6. The disease is most prevalent and general in places most thickly populated, and where the earth has been made, although no place in the city is exempt.

"7. Charleston Neck, where the soil is original, is greatly exempt, although it would be impossible to say wholly so.

"8. From cases which have occurred, it appears very questionable if the disease cannot be twice taken; of this, however, it is impossible to be accurate.

"Cleanliness is all important, and could our streets be all paved, and the marsh and low land be filled up with some other materials than the scavenger's offal now used, we might hope for better things."

Mortality, 236: adult males, 160; adult females, 32; children under 12 years, males, 17; females, 27.

"It must be kept in mind that some died in the suburbs of the city, and very many on Sullivan's Island, which, if added to the list of 1824, would increase it considerably, and, I presume, those of preceding years."

"The spring of 1824 was uncommonly hot, many persons were sun-struck. Cholera infantum was very prevalent, and many children died of it. The atmosphere was close and dense throughout the summer. The bilious fever among the inhabitants when it did occur, was very violent in its type. At the termination of the yellow fever, catarrhal fevers, sore-throat, &c., supervened." *Carolina Jour. Med.* for January, 1825, pp. 1-20.

From Dr. Simons we learn, 1. That the fever of 1824 was not imported, but originated in the city. 2. That it extended from the point of origin to the shipping, and then among strangers generally. 3. That it was malignant, attacking children and negroes. 4. The season was very hot. 5. The sanitary police was not good. 6. Yellow fever is endemic of Charleston, and

has its origin in causes there. 7. The disease is most prevalent and general in places most thickly populated, and where the soil has been made. 8. Charleston Neck, where the soil is original, is generally exempt. 9. 1824 was an epidemic year.

There is not a particle of evidence that this fever was imported, and there is no doubt of its domestic origin. We have, then, three severe epidemics in succession, in 1817, 1819 and 1824, all of local origin, for not a shadow of proof has ever been offered that any of them were imported, against the positive testimony of Drs. Sheeut and Simons.

1827. Yellow fever prevailed to such an extent that it may almost be considered epidemic. Dr. Simons says there were 67 deaths.

In August of this year, the disease was imported from Charleston to Fort Johnson, as stated in Dr. Selby's letter. Three soldiers of that post remained a night in the city; on the 9th day after, they were attacked with yellow fever; they were sick in company quarters; "ten or twelve men slept in the same room with them who were alike strangers to the climate; and yet there were no other cases of the disease in the garrison."

Here is an instance of genuine importation, and under the most favourable circumstances, the disease did not spread. The disease, which will be noticed in another place, also prevailed at Fort Moultrie. But how came the yellow fever in Charleston? No one has attempted to prove importation from the West Indies, nor can I find any account of the diseases of this year in Dr. Strobel's book, nor in Dr. Hume's paper.

1828. Dr. Simons states that there were 26 deaths in the city. The dengue prevailed as an epidemic.

1830. There were 29 deaths from yellow fever. Dr. Simons.

1831. This is not put down as a year in which yellow fever occurred in Charleston, but Dr. Selby gives some account of the fever at Castle Pinckney. "One of the Irish labourers died in the city of supposed yellow fever. Several other cases of fever occurred afterwards among the labourers," which Dr. Selby thinks were cases of bilious remittent fever.

1832. The information for this year is derived from Dr. Selby's letter to Dr. Strobel.

"The disease appeared in the city of Charleston, and from two or three of the first cases being traced to the Irish labourers at the Castle, it was supposed to have originated there. A deputation of medical gentlemen from Charleston visited the post, who thought the disease was caused by a 'quantity of shells which had been used for the purpose of filling up the parade ground;' and others thought the disease originated from the 'opening of two privies in the north wall, which had been bricked up for a number of years—their contents in an undecomposed state taken out in the month of August, and exposed to the action of the sun on the bank near by, together with the exposure of the lower story of the quarters to the action of the atmosphere, it being necessary to rip up the floor which had sunk down to the surface of the ground, and had remained in that state for some years.'"

Whether the disease arose from the shells on the parade, or from the

privies and the ripping up of the old floors, or both, it is evident that the disease was of local origin.

1834. Dr. Simons says there were 46 deaths in Charleston from yellow fever. Severe yellow fever prevailed at Castle Pinckney, and there were several deaths, among others Capt. H. W. Griswold, 1st artillery, who died October 23d. We have 46 deaths in Charleston and several at Castle Pinckney, showing an epidemic tendency, or a real epidemic. How came there so much yellow fever in Charleston and at the Castle during this year? We have no account of importation from the West Indies. It has never been pretended that the fever of this year was imported, and the cases and deaths must come under Dr. Hume's clause—"Charleston does occasionally produce sporadic cases of fever of domestic origin, but they do not extend, nor infect localities." Whether they extend or not, or infect localities or not, there was quite a sprinkling of yellow fever, of domestic origin, in and around Charleston. To the patient and his friends it makes but little difference whether such cases are sporadic, or really epidemic, whether of domestic origin, or of West Indian importation. To the patient, if fatal, the result is the same. There can be no doubt of the domestic origin of the fever of this year.

It will be noticed that Castle Pinckney was used as a Lazaretto previous to 1832. It was again recommended to the city council by their committee, December 20, 1853, for this purpose, and was on the point of being turned over by the Government, when some one had the good sense to put a stop to the project. A worse place for sick people could not well be selected. It is surrounded by marshes; in winter it is bleak and disagreeable; in summer, damp, unwholesome and unhealthy.

1835. Dr. Simons says there were 26 deaths.

From 1807 to 1835, a period of 28 years, we find 10 years in which yellow fever prevailed, more or less, sometimes severely, and at other times lightly; but in not one of these years have the contagionists attempted to point out a single instance of importation.

Dr. Strobel says: "In 1807, the embargo was laid, and instantly the yellow fever ceases, and we hear no more of it for 10 years. The embargo and non-intercourse laws had the effect of closing our ports from the year 1807 until 1812, when the war was declared, and lasted until 1815. Upon the declaration of peace, our commerce again revived, and in 1817, we had a return of yellow fever, and from that time to the present, it has occasionally occurred." p. 221.

It is not essential to our present purpose to have it determined whether the embargo and non-intercourse laws applied only to British commerce, or whether there was an embargo on all vessels coming from the Spanish, French and Danish West Indies; and there certainly was none on vessels from New Orleans; but we will take Dr. Strobel's passage as it stands, and inquire how yellow fever came in Charleston in 1809, for there was no foreign commerce, and there could be no importation; nor could there have been any in 1811, when yellow fever prevailed; nor in 1812, which Dr. Hume says was one of the years of epidemic visitation. Intercourse with

New Orleans was uninterrupted during the embargo; and the truth is, that the Port of Charleston has not been shut against commerce and the importation of disease in any year, from 1792 to the present day, except 1812, '13, and '14.

1838. We come to the first epidemic yellow fever to which the contagionists undertake to give an origin by importation, except by general and sweeping assertions. Dr. Strobel knew that there were severe epidemics in 1817, 1819, and 1824, as well as previously; but he makes no attempt to account for their appearance, except in a general way and by strong assertions. Dr. Hume merely mentions them, and passes them by in the same way.

The epidemic of 1838 is thought by many to have been the most severe ever experienced in Charleston, the number of deaths amounting to 353. In relation to this fever, Dr. Dawson and Dr. Saussure say:—

"It is well known that in the spring of 1838 occurred the dreadful fire, which laid nearly a fifth part of the city in ruins, and exposed to the action of the sun and air nearly 150 acres, saturated with the accumulated off-scourings of nearly six hundred families, leaving cesspools, wells, and cellars bare, and ready to give off their fatal emanations as soon as acted upon by the rays of the summer sun. It was not to be wondered at, therefore, that an epidemic arose which exceeded in severity all that had been known heretofore in Charleston."—*Census of Charleston*, p. 202.

Dr. Strobel gives a short account of this fever, which does not differ materially from that of Dr. Hume, and we will give the history, with the remarks of Dr. Simons, from the *Chas. Med. Jour.* for May, 1854, p. 345.

"In relation to the fever of 1838, Dr. Hume says: that the Lord Glenelg arrived at Boyce's wharf on the 4th of July, with yellow fever on board; that the *Medora* lay at Magwood's wharf, one hundred and twenty yards from the Lord Glenelg; and that the first case of yellow fever was the wife of the steward of the *Medora*, who frequently visited her husband in that ship; but it is important to add, that her case did not occur until one month after the arrival of the Lord Glenelg."

"In the first place, we deny that the Lord Glenelg had any yellow fever on board, and denied it at the time. And next, we ask, is it reasonable or sensible, or in accordance with experience and observation, that the disease should have been taken by the wife of the steward of the *Medora*, one month after the arrival of the Lord Glenelg, she not visiting this vessel, the infection remaining dormant in her system, and attacking no one else, not even those who were loading and unloading the said-to-be infected vessel, but reserving all its virulence for this poor woman, whose nearest approach to it was at the distance of one hundred and twenty yards, and that only occasionally."

"But in his anxiety to trace the disease to a foreign source, Dr. Hume forgets other more potent causes; for he says nothing of the extensive conflagration which occurred in Charleston, in the spring of that year, destroying nearly one-third of the city, nor of the effects of the consequent exposure of a large mass of heterogeneous matter to the influence of the sun and rain, nor of the number of strangers who came to the city for the purpose of rebuilding the dwellings which had been consumed by the fire, crowded together in boarding-houses deficient in number, and which strangers, already strongly predisposed to the disease, were the principal victims."

Dr. Joseph Johnson says:—

"On this principle, of a large surface exposed to putrefaction, may be explained the fact, that, after each extensive fire, have succeeded years of yellow

fever, desolating in proportion to the surface laid bare by the ravages of those fires respectively. (Dr. Johnson goes into an examination of the consequences of the great fires of 1796 and 1810, already cited, and then proceeds.) So also with other years, particularly the last and most destructive of fires in April, 1838, by which 25 acres of land, in the centre of the city, was laid open to the lodgement of water and exhalation of deleterious vapours from animal and vegetable substances in a state of putrefaction. The fire deprived eight or ten thousands of the inhabitants of their habitations. Many left the city, never to return. Strangers coming in as labourers, and residents, were attacked with yellow fever, and the desolation was awful. Charleston has not yet recovered from these unfortunate visitations."

"A similar disease followed the destructive fires in Savannah, Augusta, and, we believe, Wilmington, N. C."—*Chas. Med. Jour.* for March, 1849, pp. 57-58.

Dr. Strobel states, that:—

"On reference to the books of the Marine Hospital, we find the first case reported for 1838, to be that of Ryan, who was a seaman on board the *Medora*. He came in on the 4th of August, a decided case, which terminated fatally. He had been sick three days before his admission." p. 124.

Ryan was therefore taken sick on or about the first day of August, the same day on which Mrs. Martin, the steward's wife, was taken, and being the first yellow fever patient admitted into the Marine Hospital this year; it looks, coupled with Dr. Simons' testimony, that there was no yellow fever on board the *Lord Glenelg*, as if the vicinity of the *Medora* was one of the points of origin. We have no idea that the steward's wife took the fever on board the *Medora* from occasionally, or even frequently, visiting her husband; but if she did, what has that to do with the *Lord Glenelg* and importation? To suppose that she contracted the fever by contagion from the *Lord Glenelg*, is, to say the least, to suppose an improbability. We have no doubt that Mrs. Martin was indebted to her own residence for the fever, for Dr. Strobel says: that she "took sick on East Bay, opposite to Hard Alley," a most filthy part of the city. We have no proof whatever, so far, that the fever of 1838 was imported.

1839. Dr. Strobel says:—

"On the 7th of June, 1839, the first cases of yellow fever which occurred in Charleston, were brought to the Marine Hospital. They came from on board the ship *Burmah*, Webster. That vessel left Havana on the 1st of June." Again: "All of a sudden, however, on the 7th day of June, three cases of yellow fever were introduced into the city by the ship *Burmah*, from Havana, and then we learn for the first time, that the disease had been prevalent in that port as well as in Matanzas, as early as May. In ten days after the arrival of the *Burmah*, 3 cases are presented by the ship *Leonore*, and 1 by the ship *Chatham*. These vessels were both from Boston, that port as well as their crews being perfectly healthy at the time of their departure. They are officially inspected, and pronounced perfectly clean and healthy, so much so, that they were released from the quarantine which had been imposed. The *Leonore* lay in the stream the whole time from her arrival, and one patient, Simondson, never landed in Charleston."

It will be noted that Dr. Strobel says the fever was imported into the city from the *Burmah*, on the 7th of June. He must, therefore, refer to Cobb and Shute, who were carried to the Marine Hospital "late in the evening," and who died there, for the *Burmah* (Dr. S. himself says) lay in the stream

until the 22d of June, when she hauled to the Commercial wharves, where she lay until the 4th of July; yet we do not find the fever extending in and around that hospital, but we are always referred to the shipping.

Dr. Strobel goes on to say:—

"On the 17th of June, Ryder, Thorne, and Schmidt were brought in from on board the *Leonore*. Ryder and Thorne came in on the 4th day of their disease, and both died with black vomit. Schmidt, who came in on the 2d day, was discharged cured. The ship *Leonore* arrived in harbour on the 7th day of June, after a passage of 11 days from Boston. She lay in the stream all the time, and Schmidt, one of the patients, never landed in the city of Charleston until brought ashore sick. The *Leonore* lay in the stream 200 yards from the shore, and opposite to Central wharf. The ships *Burmah*, *Medora*, and *Copia*, from Havana and Matanzas, also lay in the stream during the same period.

Dr. Strobel admits that no communication between the *Burmah* and *Leonore* could be traced, but supposes it, without any reason, in our humble opinion. He omits, however, a very important circumstance. He states distinctly, that the *Leonore* lay in the stream 200 yards from the shore, opposite Central wharf, which is nearly up to Market street; and that the *Burmah* also lay in the stream during the same period. He does not inform us whether the *Burmah* lay only half a cable's length from the *Leonore*, or half a mile, a material circumstance; but it so happens, that others tell us that the *Burmah* lay off Roper's wharf, by the South Battery, and consequently, the two vessels were nearly half a mile apart. And now, will any reasonable person affirm that the *Leonore* could be infected by the *Burmah*, at the distance of half a mile in the stream? But let us refer to Dr. Simons.

"On the 7th of June, 1839, three patients were admitted into the Marine Hospital from the ship *Burmah*, which had arrived from Havana, of which I was informed by the physician of that institution. * * The remainder of the seamen on board who were sick, were sent to the Lazaretto, and the ship was thoroughly cleaned and ventilated, she being in ballast. She was in the stream and did not come to the wharf for some weeks after, and had no communication, as far as could be ascertained, with other vessels. On the 17th and 19th, cases were admitted into the Hospital from the ships *Chatham*, *Leonore* and *Elizabeth Bruce*. The *Chatham* and *Elizabeth Bruce* were lying at Fittsimons' wharf (foot of Market street), the *Leonore* was lying in the stream opposite these vessels, and had never been to the wharf; the *Burmah* was lying in the stream off Roper's wharf; the distance between each of the vessels was therefore considerable, and there were a good many vessels between, on board of which no sickness as yet occurred. The *Chatham* arrived here from Boston on the 5th of June, in ballast; the *Elizabeth Bruce* arrived in Charleston from New York, 7th of June, in ballast; and the *Leonore* sailed from Boston, and arrived on the 7th June, in ballast; all the crews were well. Subsequently, the disease occurred in different vessels in the harbour, which it would be unnecessary to detail."

"The fever having occurred so early in the season and so soon after its appearance on board the *Burmah*, created a suspicion of contagion in the minds of some, but I could not, upon the minutest investigation, come to that conclusion; and a committee, consisting of Drs. Lopez, Moultrie, Geddings, Campbell, Winthrop and Horlbeck, the President, which was appointed by the Medical Society, after making a minute and thorough investigation, came to the conclusion, that the fever was not introduced by the *Burmah*, or by contagion, but was produced by the peculiar condition of our atmosphere. In other words, it was epidemic, and arose from causes among us. From that report I select the following:—"

"By an examination instituted through reference to the captains and mates of the various vessels, whose information was given from the log-books, your committee have ascertained that they had, at the time of their sailing from the different ports, viz: Liverpool, Boston, and New York, for this port, perfectly healthy crews, with sound cargoes, incapable from their character of generating foul air. That there was no malignant disease at the time of their departure; that their crews had not, while in this port, any communication, either direct or indirect, with the Burmah or her crew; and finally, that *that ship*, in all these instances, lay in the stream, from a quarter to half a mile from them, except for a short period, of which mention will be made hereafter."

Again: "The presumption is thus fairly induced, that the cleansing and ventilation must have disinfected her (the Burmah) sufficiently of her foul atmosphere for purposes of safety, *else, why did none other of her crew remaining on board thence to the time of departure from our port, contract the disease?*"

"Again: 'Thus far your committee have satisfied themselves, that the transmission of the fever through the agency of the Burmah, is neither tenable as a fact, nor in accordance with the opinions of a great majority of the medical profession in this country.'"

"And again: 'Your committee, therefore, are of opinion, that the yellow fever which has prevailed, and still continues this season, has its origin, not from contagion derivable from those cases imported in the ship on the 6th of June last, but from local and general causes.'"

"I may here also remark," says Dr. Simons, "that in 1838, a fire occurred which destroyed one-third of the city of Charleston, and in this year and 1839, the exposure of an immense mass of materials on the surface of so much uncovered earth, and water in the cellars, were exposed to solar influence, sufficient of themselves to generate yellow fever."

"It must be here remarked, that the month of June was uncommonly hot; and the whole of this summer was remarkable for the great drought, as well as high temperature."

The remainder of Dr. Simons' report is devoted to a consideration of the importance of a full supply of pure and wholesome water, the planting of trees, of awnings to the vessels in the docks, the evils of small houses on filthy and partially filled lots, the disposal of the city offal in a more judicious manner than to use it for filling up low streets and marsh lots, the cleansing of the docks at a proper season, the preventing of exhalations from the drains, and clearing them out in the winter season, keeping the streets and yards clean, draining and filling up low lots, properly ventilating and keeping the cellars dry, prohibiting any more cellars, and burying the dead beyond the precincts of the city. Report on the yellow fever of 1839: also *Chas. Med. Jour.* for Novemb., 1851.

Dr. Simons' account renders it certain that the cases of yellow fever on board the Chatham, Elizabeth Bruce and Leonore, were not contracted from the Burmah, and the disease was doubtless of local origin, which is not surprising, considering all the circumstances of the city. There were also other cases of this fever in the harbour, with which the Burmah could have had nothing to do. Let us look at a portion of Dr. Lebby's letter.

"Capt. R., of the U. S. Lighter Valiant, lying in the cove of Sullivan's Island," was taken with this fever on the 16th June. "This man had not been in the city, from all the information I could obtain, for twelve days, at least, previous to his attack." He had black vomit and died.

This man, then, had not been in the city since the 4th of June, which was before the *Burmah* arrived in the stream, and he was taken sick before she went to any wharf; for Dr. Strobel distinctly informs us, that the *Burmah* was not hauled to the wharves until the 22d June, but "continued to lay in the stream." From circumstances, there is no doubt of this man having taken the disease on board of his own vessel.

The next case admitted was on the 20th June, from the lighter *Sea Flower*, the captain lying at the wharf at Fort Johnson. "This vessel had been engaged for some time in transporting materials from this port to Fort Moultrie—the captain had not been to the city for many weeks." This case must have originated at Fort Johnson, Sullivan's Island, or on board the vessel—certainly not on the *Burmah*.

"The third case was admitted on the 22d June." This person, a northerner, in high health, temperate, took charge of the *Valiant* as soon as R— was taken sick. "This case was well-marked yellow fever from the commencement." He had been frequently to and from the city. On the next day a third case from the *Valiant* was brought in—a black man with bilious congestive fever; and on that evening another black with the same fever, from the lighter *Fame* from Charleston." Immediately after the admission of the third case, Dr. Lebby suspected the *Valiant*, and suggested the removal of the crew, and to have her "ventilated and well cleansed."

"Capt. Harvey was placed in command of her, who stated to me that he found a large quantity of decomposed cabbages and potatoes, and other vegetable matter in a putrid state in her lockers, and a quantity of dirt and filth between her ceiling. Several of the negroes engaged in cleaning her were taken sick with intermittent and congestive fevers. She was scuttled and allowed to remain full of water for some days. After this she was pumped out, and continued healthy the rest of the season."

She continued healthy the rest of the season, just as the *Burmah* remained healthy after a thorough cleansing.

We have three cases of yellow fever, two cases of congestive fever in blacks, and several cases of intermittent and congestive fever among the negro labourers about the *Valiant*, not one of whom can be suspected of communicating with the *Burmah*. These three cases of yellow fever are about as strong instances of the "self-generating" process as have ever been placed on record. The lighters did not communicate with the vessels at quarantine, for Dr. Strobel inquired if "they did not communicate with vessels from Havana or Matanzas, lying at the quarantine ground." Dr. Lebby's reply is what follows:—

"I have taken considerable trouble to ascertain this fact, and I have no hesitation in asserting that, with one exception, there never was any communication with the quarantine vessels and the government lighters, nor with any one in the service of the United States. The exception alluded to, was the captain of the steamer *Sumpter*; on one occasion he sent his boat on board the *John C. Calhoun*, some days after she had been boarded by Dr. Simons. No ill effects resulted from it, for neither of the negroes that were in the boat were sick afterwards. The steambot continued to perform her regular duties between the

city and the fort throughout the season, and though her engineer and mate were entire strangers, there were no cases of fever on board."

These extracts settle the question. There seems to be no doubt of the local or domestic origin of the fever on board of the Chatham, Elizabeth Bruce, Leonore, and the lighters in Charleston harbour; and it is certain that the disease was not contracted from the Burmah. Every one of Dr. Lebbey's three cases of yellow fever was taken before the Burmah hauled to the wharf on the 22d of June.

Neither Dr. Strobel nor Dr. Hume says one word in relation to the condition of Charleston in 1839. Drs. Dawson and De Saussure say:—

"During the succeeding summer (1839) there still remained sufficient putrescent material exposed in the burnt district, to give rise to a second but less extensive epidemic."

In 1839 yellow fever prevailed in Augusta, Ga., and Dr. F. M. Robertson, now of Charleston, as chairman of a committee "to inquire into the origin and causes which gave rise to the late epidemic," addressed Dr. Geddings in relation to the Charleston fever of the same year. The questions and replies are as follows:—

"1. Do you consider the fever commonly called *yellow fever*, or what is termed *stranger's fever* in your city, a contagious disease?"

"Ans. In the whole course of my observation, in several epidemic visitations of yellow, or stranger's fever in this city, I have not witnessed a single fact favourable to the doctrine of contagion. On the contrary, facts, almost without number, have fallen under my observation, all producing the fullest conviction in my mind, that the disease is not contagious."

"2. Do you believe that a state of the atmosphere can be produced, capable of rendering the disease epidemic in a city, by the simple introduction of cases from other cities?"

"Ans. In reply to this query, I must likewise state, that I have never witnessed a single fact calculated to favour the belief that the disease can be rendered epidemic in a city, by the introduction of cases from other cities. Such an effect I hold to be impossible in any other way, than by the agency of either common causes or contagion. Believing, therefore, that contagion does not exist, my conviction is that when the disease prevails as an epidemic, it owes this character entirely to common causes, operating through the medium of the atmosphere of the place. A ship arriving in port, having yellow fever on board, may impart that disease to persons exposed to its atmosphere; but the disease produced under such circumstances, will never spread through the community, or in other words, assume the form of an epidemic."

"3. Do you consider the disease as it prevailed in your city, during the past summer, to have exhibited, in any degree, a contagious nature?"

"Ans. I have never, either in the epidemic of the past summer or of those which preceded it, observed a single fact or circumstance favourable to the belief in any contagious property. On the contrary, I have witnessed the most free and unlimited intercourse between the sick, and those who might be considered subjects for the disease, without the latter being attacked."

Here we have the whole subject. Dr. Geddings had witnessed several epidemics in Charleston, particularly those of 1838 and 1839; he was a member of the Committee which investigated the cause and origin of yellow fever in the latter year; he knew every circumstance in relation to the Burmah; and here we have his testimony. The whole subject—contagion, contingent

contagion, and non-contagion—is here presented. It is easy to understand that a disease is contagious, and that transmissibility means contagion, but it is difficult to understand the refinement of contingent contagion; and it appears to us that a disease must be either contagious or non-contagious, for we have no instance of contingent contagion in any of the numerous ills that flesh is heir to, particularly in smallpox, measles, scarlatina, &c.; and what the contagionists term so is, in our humble opinion, quite as liable to be extended to the shipping as from it. We have several instances of this. In 1817 yellow fever originated, was engendered, in Lynch's Lane, and extended to the shipping; and in 1824 Dr. Simons tells us that the fever was first "exhibited in a narrow, dirty alley, from thence it extended to the shipping," and then generally. In 1838 we have another instance in the *Medora*, in the case of Ryan, already alluded to; and in 1839 we have indisputable instances in the *Chatham*, *Elizabeth Bruce*, and *Leonore*. In 1849 we have the *Numa*; in 1852 the *Clara Bell*, with Capt. Cale's lady; and in 1853 we have an instructive example of this kind of contagion in the *Barkeley*. The shipping have been more "sinued against than sinning."

ART. VII.—*Synopsis of Thirty Cases of Ovariectomy occurring in the Practice of the Author.* By WASHINGTON L. ATLEE, M.D., of Philadelphia.

CASE I.—The first operation was performed on the 29th of March, 1844; patient, Mrs. G. S., aged 61 years. The incision extended from two inches above the umbilicus to the pubis; the tumour cystiform, bilocular, non-adherent, weighing about twenty-five pounds. The colon was involved in a broad pedicle. Both ovaries diseased. Constitution very feeble. Death from insidious peritonitis on the sixth day. (Reported in the *Amer. Journ. of the Med. Sciences*, N. S., vol. viii. p. 43.)

CASE II.—Operation, 28th of August, 1844; patient, Miss L. P., aged 24 years. Incision from umbilicus to pubis; tumour extra-uterine, fibrous, weighing nearly two pounds. Pedicle very thick and fleshy. Violent peritonitis. Intestines during the operation very troublesome. Recovery. Died three years afterwards of phthisis pulmonalis, an hereditary disease. (Reported in the *Amer. Journ. of the Med. Sciences*, N. S., vol. ix. p. 309.)

CASE III.—Operation, 15th of March, 1849; patient, Mrs. E. K., aged 29 years. Incision from symphysis pubis to middle of crest of ilium on right side, seventeen inches long; tumour ovarian, fibrous, firmly and extensively adherent to the bones of the pelvis and to the iliac vessels of the right side, weighing eight pounds. Poupart's ligament was embedded in the tumour and stretched across it. Complete procidentia uteri. A mixture of one part of chloroform and two parts of ether, liquid measure, inhaled with the happiest effects. Recovery. Still living.

Note.—As a matter of physiological interest, it may be well to state that